DOCUMENT RESUME

ED 274 502 RC 015 951

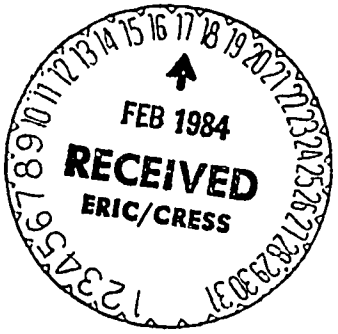
AUTHOR Woods, Mike D.; Doeksen, Gerald A.
TITLE Community Level Impact Assessment--Extension Applications.
PUB DATE Aug 82
NOTE 25p.; Paper presented at the Annual Meeting of the Community Development Society (Madison, WI, August 8-12, 1982).
PUB TYPE Reports - Descriptive (141) -- Guides - Non-Classroom Use (055) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Community Planning; Community Services; Computer Oriented Programs; *Computer Simulation; Computer Software; Decision Making; Economic Development; Extension Agents; Models; Outreach Programs; *Prediction; Program Descriptions; Rural Areas; *Rural Development; Rural Economics; *Rural Extension
IDENTIFIERS Cooperative Extension Service; *Impact Evaluation Model

ABSTRACT

Using the Oklahoma State University (OSU) computerized community simulation model, extension professionals can provide local decision makers with information derived from an impact model that is dynamic, community specific, and easy to adapt to different communities. The four main sections of the OSU model are an economic account, a capital account, a demographic account, and a government account. The economic account is the driving force of the model and includes a community specific input-output model and a gravity model, which is employed to determine the service area of a community. A location quotient technique is applied to a regional or state input-output model. The community model is made dynamic through the use of equations that predict final demand over time. The capital account allows for the simulation investment and its effects on the economy. The demographic account is a typical birth, death, population projection model with migration being an equalizer to match up people with available jobs in the economic sector. The government account estimates the need for services based on community service use co-efficients. This report illustrates the model by reporting its application with the community of Holdenville, Oklahoma. (JHZ)

COMMUNITY LEVEL IMPACT ASSESSMENT -- EXTENSION APPLICATIONS



by*

Mike D. Woods
Gerald A. Doeksen

Paper presented at Annual Meeting and Conference, Community Development Society

August 8-12, 1982

University of Wisconsin
Madision, Wisconsin

*Woods is Extension Community Services Specialist, Texas Agricultural Extension Service, Texas A&M. Doeksen is Extension Economist, Department of Agricultural Economics, Oklahoma State University.

COMMUNITY LEVEL IMPACT ASSESSMENT --

EXTENSION APPLICATIONS

Rural areas and small towns are now facing many challenges and a new set of problems has developed for local government. The population influx to nonmetro areas has brought new and increased demands for community services. Preliminary 1980 census figures indicated that metropolitan counties increased by about 15 percent whereas metropolitan counties increased by about 9 percent from 1970 to 1980 [1]. Many mining, resort-retirement and urban fringe counties grew by 40 to 50 percent or more. At the other extreme, nearly 500 of the 2485 nonmetropolitan counties continued to decline in population during the 1970's [11].

The trend toward fiscal federalism, inflationary pressures, and high interest rates all combine to create planning and development problems for local decision-makers. Rapid population growth greatly magnifies these already serious problems. Planning community services often entails large capital outlays and, thus, it is important to base plans on available employment, income and population information. A mistake of building a water or sewer treatment plant too large or too small can be very expensive and embarrassing to elected officials. Similarly, decisionmakers in declining or stagnating rural areas need to properly plan so that their scarce resources are efficiently allocated.

Extension personnel can aid local decisionmakers with a locally applicable community impact model. The objective of this paper is to illustrate how Extension professionals can utilize community impact models. More specifically t objectives are:

1. to review several community impact models
2. to illustrate the application of a community impact model; and
3. to discuss the Extension challenge of delivering community impact models.

RESEARCH SUPPORT FOR IMPACT MODELS

Impact models describe economic and demographic changes which affect both the public and private sectors. Private sector impacts include employment, income, and output changes by economic industry or group. Public sector impacts include the fiscal aspect of economic development. What effect does growth have on local government revenue as well as the need for public services. Population changes and demographic trends are related to all these impacts. With shifting populations, economic changes, and energy development, reliable impact models are increasingly useful.

Brief Review of Some Impact Models

Many types of models and methodologies have been developed. These range from economic base analysis to complicated community simulation models. Shaffer and Tweeten [12] present an early version of an impact model developed to measure the impact of new industry on rural communities in Oklahoma. The model provides results of private impacts, public sector impacts and school district impacts. A framework for calculating net gain (loss) to the community was also included in order to estimate reasonable "inducement" levels that communities might offer potential manufacturing employees. The model is notable because of the emphasis placed on making it usable and understandable to local leaders. The model utilizes partial budgeting techniques and is a single period tool with no dynamic time considerations. Shaffer and Tweeten note the difficulty of estimating the indirect

and induced effects at the community level because there are no published rural community input-output tables. Two conclusions reached by the authors are that industrial impacts vary over different economic sectors and differ among communities.

Ford [5] presents a computer model that is designed to describe the impacts of locating large power plants near small, isolated communities. Small towns in the western states that experience this type of impact generally go through an initial "boom" period with rapid expansion. Following the initial construction phase, economic and demographic changes tend to level off. Characteristics of the immigrating population during the construction phase are often quite different from the characteristics of the indigenous population. Public service capital and economic activity are often expanded to support the rapid population growth putting a strain on the public sector. Following completion of the energy project, a "bust" period often follows. Tax revenues decrease and the local government is left with excess capacity in the public sector. The BOOM 1 model [5] provides economic, demographic, public service, and fiscal projections of the proposed impacts. Yearly projections for the city of interest are provided. A series of feedback loops are utilized to provide dynamic projections from year to year.

Clayton and Whittington [2] present an impact model developed for use in the state of Florida. The model is an ex ante evaluation of the impacts of community growth. Output includes employment and population changes resulting from an outside impact such as a new industry. Private sector impacts include such variables as direct, indirect and induced sales from the impact being analyzed. Public sector impacts include projection of local revenues and expeditures. A net fiscal surplus (deficit) is calculated along with a break-even property assessment ratio. City, county, and school district levels of goverment are included. The Florida model emphasizes user access with default data provided when local data

are unavailable. This type of data availability increases the usefulness of the model and allows more timely analysis.

A model has been developed in North Dakota [7] which is designed specifically to measure the impact of energy developments. The model provides annual impact and baseline projections of key variables. Impacts of energy resource development can be measured for employment, population, settlement patterns, school enrollments, housing requirements, and public sector costs and revenues. Like the model for Florida [2], the North Dakota model relies heavily on the input-output portion of the model. Output is provided at the state, county, city and school district levels. Also, the complex process of interfacing economic projections with population growth is well documented.

Fox [6] discusses the development of impact models from a user's viewpoint. Governments at all levels are faced with decisions that would be greatly aided by impact model forecasts. Fox emphasizes the fact that user confidence will be enhanced by more accurate and useful models, thus increasing clientele support. For users to utilize models to best advantage, they need to understand the basic model assumptions and structures. If information is clearly communicated to the layman users, then less misinterpretation will occur. Users should be encouraged to ask as many questions as necessary to understand the model.

As can be seen from a very brief review of impact models, a wide range of methodologies exists. Some models measure energy resource development impacts, some measure the results of industrial development. Some impact models can also project baseline growth to compare to the resulting growth from some outside impact. Developing new and innovative methodologies is necessary to continually improve the models used. Adaptation of existing models provides additional checks on model validity. Model builders should utilize the 1980 Census results to improve and verify modeling efforts. It is critical for the successful utilization of all impact models to make outputs usable and under-

standable for decisionmakers. From the viewpoint of an Extension worker, the most useful model would be: (1) dynamic; (2) community specific; and (3) easy to adapt to each community.

A community impact model has recently been developed at Oklahoma State University (OSU) which relys on the works referenced above [13]. To facilitate Extension application, special efforts have been made to make the model dynamic, community specific, and easy to adapt. The OSU model is discussed in detail in the following section.

The OSU Community Impact Model

An aggregrate overview of the OSU community impact model is presented in Figure 1. The model has four main sections: an economic account, a capital account, a demographic account and a government account. The economic portion of the model is the driving force of the model. It includes a community specific input-output model and a gravity model. The gravity model is employed to determine the service area of a community. A location quotient technique is applied to a regional or state input-output model to derive a community specific input-output model. The community model is made dynamic through the use of equations which predict final demand over time.

A capital account allows for the simulation investment and its effects on the economy. The demographic portion of the model is a typical birth, death, population projection model with migration being an equalizer to match up people with available jobs in the economic sector. The government sector estimates the need for services based on community service usage coefficients.

To illustrate the model, a recent application is presented. The community simulation and impact model was applied to the community of Holdenville, Oklahoma. The model simulated values for economic and demographic variables by year from the base year of 1972 to 1991. Projections of employment for selected

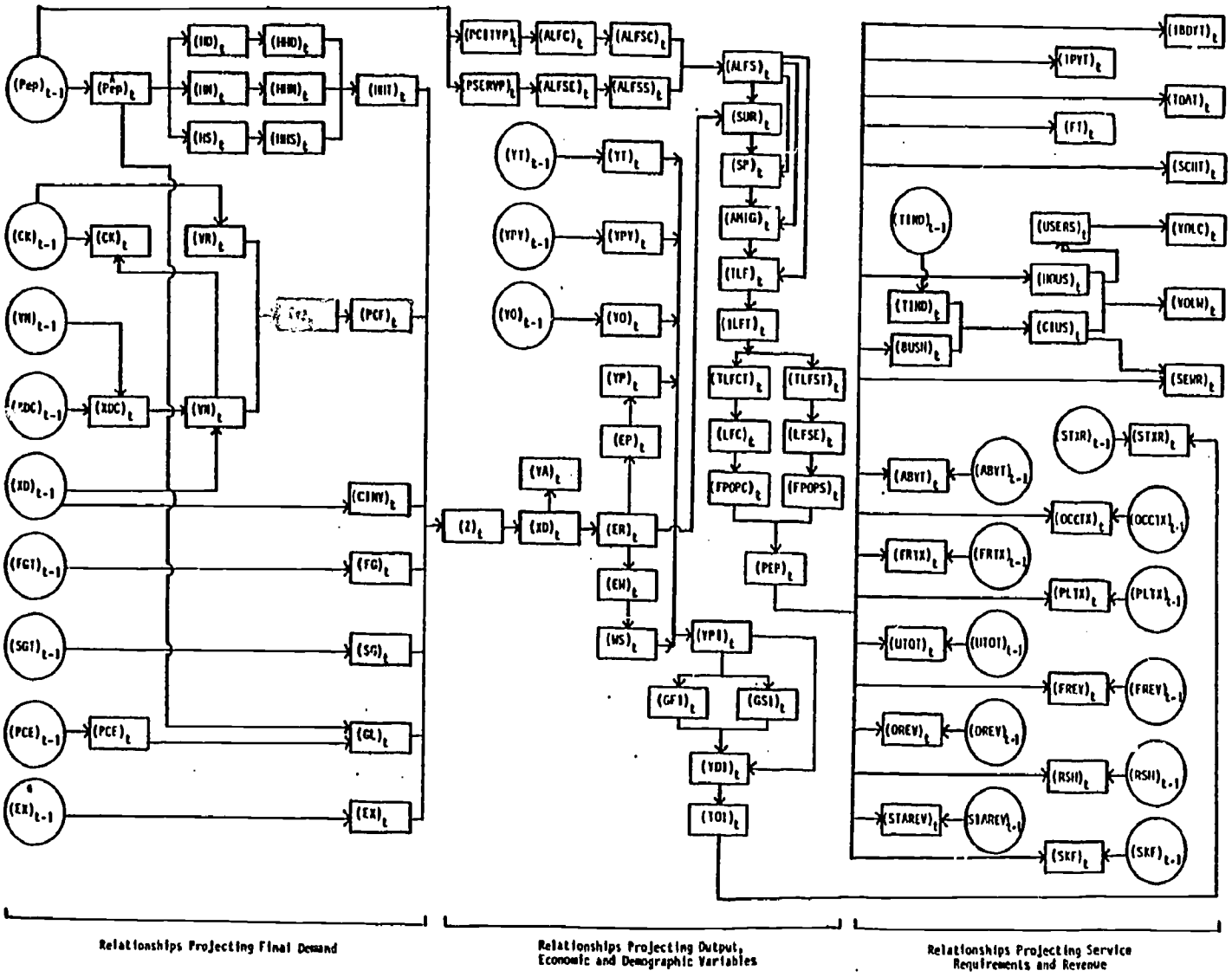


Figure 1. Flow Chart of the Simulation Model for Rural Communities in Oklahoma

years are presented in Table 1. Many of the future jobs are expected in the service type sectors of wholesale and retail trade, finance and insurance and educational and professional services. Proprietor employment is projected to increase slightly. The model projects population by age and sex categories. Aggregate data for the community and for the service area are shown in Table 2. Population is projected to increase from 8,756 in 1972 to 11,182 in 1990. The 1980 population was projected at 8,939. Preliminary 1980 census data show a population of 9,201.

The government component, which predicts service needs, is probably the most useful section of the model. Projected community service needs for the Holdenville area are shown in Table 3. Hospital bed days are projected to increase from 16,508 in 1980 to 19,319 in 1990. These estimates are based on estimated population by age and sex in hospital utilization rates for each age and sex category [8]. For each community service, detailed research has been completed to facilitate usage predications based on local conditions. An estimation of general fund revenue which will be available to Holdenville to support additional services and other local government functions was made for each year from 1972 through 1991. Annual revenues for selected years are presented in Table 4.

The data in Tables 1 through 4 reflect growth as is currently occuring in the area and can be referred to as "base run" information. If a new plant or some other development activity was expected, its impact could be simulated. For example, assume a new plant employing 50 workers is expected to locate in Holdenville in 1982. The community simulation and impact model can be run and comparisons of the estimates made with base year estimates to measure the impact of the plant. Selected impacts measured in this way are

---

[1] For a summary of community service studies, see [4].

TABLE 1

PROJECTED EMPLOYMENT BY SECTOR FOR HOLDENVILLE, SELECTED YEARS*

SECTOR	YEAR				
	1972	1975	1980	1985	1990
AGRICULTURE, MINING	164	184	220	273	343
CONSTRUCTION	34	62	63	98	156
MANUFACTURING -- NONDURABLE	178	153	117	109	109
MANUFACTURING -- DURABLE	1	143	121	142	168
TRANSPORTATION	25	30	30	34	41
COMMUNICATION, UTILITIES	60	43	30	30	31
WHOLESALE AND RETAIL	252	312	365	493	693
FINANCE, INSURANCE AND REAL ESTATE	256	298	355	461	616
EDUCATIONAL AND PROFESSIONAL SERVICES	629	703	803	989	1,262
TOTAL WAGE AND SALARY	1,599	1,928	2,104	2,629	3,419
TOTAL PROPRIETOR	1,112	1,161	1,106	1,125	1,133
TOTAL	2,711	3,089	3,210	3,754	4,552

*Source [13]

TABLE 2

PROJECTED POPULATION FOR HOLDENVILLE AND SERVICE AREA, SELECTED YEARS*

	1972	1975	1980	1980[A]	1985	1990
HOLDENVILLE	5,222	5,388	5,215	5,373	5,662	6,397
SERVICE AREA	3,534	3,723	3,724	3,828	4,152	4,785
TOTAL	8,756	9,109	8,939	9,201	9,814	11,182

[A]Preliminary Census Data

*Source [13]

TABLE 3

PROJECTED COMMUNITY SERVICE NEEDS FOR HOLDENVILLE AND SERVICE AREA, SELECTED YEARS*

	YEAR				
COMMUNITY SERVICE	1973	1975	1980	1985	1990
HOSPITAL BED DAYS	16,364	17,163	16,508	17,536	19,319
PHYSICIAN VISITS (CLINIC)	30,744	32,240	31,565	34,535	39,224
AMBULANCE CALLS					
HOLDENVILLE	227	240	233	244	261
SERVICE AREA	108	118	124	140	162
TOTAL	335	358	357	384	423
FIRE CALLS					
HOLDENVILLE	83	86	84	91	103
SERVICE AREA	56	60	60	66	77
TOTAL	139	146	144	157	180
WATER[A] (THOUSAND GALLONS/YEAR)	168,600	176,158	170,764	185,893	209,486
SEWER[A] (GALLONS/DAY)	519,328	541,656	524,553	569,796	643,512
SOLID WASTE[A] (CUBIC YARDS/DAY)	389	406	393	427	483

[A]Holdenville Community only

*Source [13]

TABLE 4

PROJECTIONS FOR GENERAL FUND REVENUE FOR HOLDENVILLE, SELECTED YEARS*

	YEAR				
	1973	1975	1980	1985	1990
	THOUSANDS OF CURRENT DOLLARS				
SALES TAX	223	309	519	922	1,688
ALCOHOLIC BEVERAGE TAX	30	32	31	33	38
USER CHARGES AND OTHER	200	207	200	218	246
TOTAL	463	548	750	1,173	1,972

*Source [13]

presented in Table 5. The simulation model projects wage and salary employment to increase by 115 in 1982 and 94 in 1990 due to the new plant. Likewise, physician visits are projected to increase due to the plant by 799 in 1982 and 550 by 1990.

A major function of the OSU community impact model is to allow decision-makers to estimate the impact of a change in their community's economy on com-community service needs and community revenues. They can then determine when the capacities of existing systems will be reached and what capacities should be designed into system constructions or renovations. If researchers are to continue serving community decisionmakers, we must constantly strive to improve our abilities to simulate and predict the impacts that changes will have on communities.

Adaptation of Impact Models

Model adaptation involves converting a model used in one state for use in another state or area. This process can be successfully accomplished if care is taken to replace original data with more appropriate data for the new area being considered. This can take considerable time, but may be considerably more efficient than developing a new model from "scratch". Examples of model adaptation include a model developed for Virginia [9]. The Virginia model draws from the work of Shaffer and Tweeten [12] and provides similar output. Another adaptation is the model developed for Texas [10] which follows the methodology developed in the North Dakota model.

Alternate data sources and estimating techniques should be considered when adapting a model for use in another state. Murdock et al. (1980) notes that the effort should not be taken lightly. If possible, a member of the team building the original model should be consulted during the effort. The Oklahoma community impact model is presently being adapted for use in a Texas community. The model will be used to predict both baseline growth and the impact of energy development. Again, special state-by-state considerations become

TABLE 5

PROJECTED IMPACT FROM 1982 TO 1990 FOR SELECTED YEARS DUE TO NEW PLANT LOCATION IN HOLDENVILLE IN 1982*

	YEAR			
	1982	1985	1987	1990
WAGE AND SALARY EMPLOYMENT	115	166	115	94
POPULATION[A]	225	317	208	156
HOSPITAL BED DAYS[A]	440	603	388	283
PHYSICIAN VISITS[A]	799	1,122	735	550
AMBULANCE CALLS[A]	10	15	9	7
FIRE CALLS[A]	4	5	4	3
WATER[A] (MILLION GALLONS/YEAR)	7.3	10.5	6.8	5.2
SEWER[A] (THOUSAND GALLONS/DAY)	23	33	21	16
SOLID WASTE[A] (CUBIC YARDS/WEEK)	17	25	16	12
GENERAL REVENUE ($1000)	25	37	27	25

[A]Holdenville Community only

*Source [13]

important. Differences in tax structure, governmental organization, economic trends and other structural considerations are important as well as obvious data source differences.

THE EXTENSION CHALLENGE

Debertin and Goldman [3] list several functions for Extension professionals in impact analysis:

(1) education and training,

(2) assistance in interpreting and understanding a report,

(3) working with local government in doing an impact analysis, and

(4) advice on selecting consultants.

This paper has presented a community impact model which is being used for categories 1, 2, and 3. In working with local government leaders to conduct an impact analysis it is necessary to interpret and aid in understanding the analysis. This type of close work with local officials provides the educational opportunity that Extension is well suited for.

Several aspects of the delivery of community impact information to local decisionmakers are critically important to Extension workers. Community simulation and impact models must be easily adaptable to specific communities, and they must be accessable for quick delivery. The OSU community simulation model is programmed with default data. Thus, if local data are not available, values of variables in the model will be used. The model requires base year data for employment, population and miles from neighboring communities. Once these data are entered, it can be run for any community. Default data can easily be changed if local decisionmakers have more accurate local data. An example of the interactive portion of the computer program is shown in the Appendix. The computerized and interactive program allows flexible and timely results for the user.

It is usually important to respond to information needs of local decisionmakers as rapidly as possible. The OSU model is written to facilitate rapid

output of information which can be readily compiled into a community report. OSU personnel attempt to complete analyses within 2-4 weeks of a request. Then, a computer terminal is taken to the field when the study is presented so that additional community simulation runs can be made if local decisionmakers wish to change certain variables.

Another important element of the successful delivery of information from the OSU community impact model is to leave several copies of the final report with community leaders. This provides them with a reference for future use and also makes them more aware of Extension's services. It is often seen by community leaders of other communites, resulting in more requests and building Extension's clientele. In summary, as Extension workers, we need to provide (1) community specific analyses; (2) quick responses to community requests; and (3) written reports of results of analyses to each community. Used in this way, community impact models will serve to build an Extension clientele as assistance is given to leaders of rural communities.

References

1 Beale, Calvin L., Rural and Small Town Population Change. Economics and Statistics Service, USDA, Report ESS-5, February 1981.

2 Clayton, Ken, and David Whittington, "The Economics of Community Growth: An Impact Model," Southern Journal of Agricultural Economics, Volume 9, Number 1, July 1977, pp. 63-69.

3 Debertin, David L. and George E. Goldman. "Extension's Role In Economic Inpact Analysis." in How Extension Can Help Communitites Conduct Inpact Analysis, Extension Committee on Organization and Policy, Task Force on Economic Impact and Data Analysis, University of Wisconsin-Extension, January, 1982.

4 Doeksen, Gerald A., and James R. Nelson, Community Service Budgeting: An Effective Extension Tool. Dept. of Agriculture Economics Paper 8156, Oklahoma State University, May 1981.

5 Ford, Andrews, Users Guide to the BOOM 1 Model. Los Alamos, New Mexico: Los Alamos Scientific Laboratory, LA-6396-MS, August 1976.

6 Fox, Bob, "A User's Viewpoint of Econometric Models and Impact Analysis." Computer Models and Forecasting Socio-Economic Impacts of Growth and Development Conf. Proc., Edmonton, Alberta, April 1980, pp. 37-44.

7 Hertsgaard, Thor, Steve Murdock, Norman Toman, Mark Henry and Richard Ludtke, REAP Economic Demographic Model: Technical Description. North Dakota Regional Enviromental Assessment Program, February 1978.

8 May, Alan, Gerald A. Doeksen and Bernal L. Green, Utilization of Health Services in the Great Plains. Agricultural Information Bulletin No. 414, Economics, Statisitcs and Cooperative Service, USDA, March 1978.

9 McNamara, Kevin T. and Marion J. Brokaw, "A Joint Research-Extension Project: Economic Impact Analysis for Virginia Communities, "Rural Development Reaserch and Education, Volume 3, Number 4, 1980, pp.4-6.

10 Murdock, Steve H., Lonnie L. Jones, F. Larry Leistritz, and Donald R. Andrews, "The Texas Assessment Modeling System (TAMS): A Case Study in Model Adaption," Computer Models and Forecasting Socio-Economic Impacts of Growth and Development Conf. Proc., Edmonton, Alberta, April 1980, pp. 220-260.

11 Secretary of Agriculture, Implementation of the Small Community and Rural Development Policy, A Report from the Secretary of Agriculture to the President, January 15, 1981.

12 Shaffer, Ron, and Luther Tweeten, "Measuring the Impact of New Industry on Rural Communities in Oklahoma," in Research Application in Rural Economic Development and Planning, Agricultural Experiment Station Research Report P-665, Oklahoma State University, 1972, pp. 60-76.

13 Woods, Mike. "A Simulation Model for Rural Communities in Oklahoma." (Unpub. Ph.D. dissertation) Oklahoma State University, December 1981.

APPENDIX

COMMUNITY IMPACT MODEL

INTERACTIVE COMPUTER PROGRAM FOR INPUT DATA

```
EX COMSIM
 ARE YOU READY(YES OR NO)?
YES


* ENTER DECIMAL POINT WITH ALL NUMERICAL ANSWERS.


------------------------------------------------------------
                    SECTORS  1-9  DEFINED
============================================================
SECTOR 1.  AGRICULTURE, AND MINING
SECTOR 2.  CONSTRUCTION
SECTOR 3.  MANUFACTURING--NONDURABLE
SECTOR 4.  MANUFACTURING--DURABLE
SECTOR 5.  TRANSPORTATION
SECTOR 6.  COMMUNICATION, UTILITIES, AND SANITARY SERVICES
SECTOR 7.  WHOLESALE AND RETAIL TRADE
SECTOR 8.  FINANCE, INSURANCE, BUSINESS, AND REPAIR SERVICES
SECTOR 9.  EDUCATIONAL SERVICES
           PUBLIC ADMINISTRATION
           PROFESSIONAL AND RELATED SERVICES,
           AND OTHER INDUSTRIES



---------------------------------------
           FINAL DEMAND (1-6) DEFINED
=======================================
FD1.  PERSONAL CONSUMPTION EXPENDITURES
FD2.  CAPITAL FORMATION
FD3.  INVENTORY CHANGE
FD4.  FEDERAL GOVERNMENT
FD5.  STATE GOVERNMENT
FD6.  LOCAL GOVERNMENT
 NET EXPORTS
 DO YOU KNOW YOUR COMMUNITY"S SPHERE OF INFLUENCE ? (YES OR NO)
NO
 THE POSITIONS OF THE FOUR CLOSEST TOWNS TO YOU ARE ?
  ( GIVE THE X THAN THE Y COORDINATE)
 THE QUADRANT POSITION OF TOWN ONE IS ?
14.00  15.00
 THE QUADRANT POSITION OF TOWN TWO IS ?
21.00  -5.00
 THE QUADRANT POSITION OF TOWN THREE IS ?
-9.00  -10.00
 THE QUADRANT POSITION OF TOWN FOUR IS ?
-9.00  6.00
THE SPANNING AREA IS:         346.077
 THE ANUAL GROWTH RATE OF LOCAL POPULATION IS:     1.005000
 DO YOU WISH TO CHANGE THIS VALUE ? (YES OR NO)
NO
 THE ANUAL CHANGE IN LABOR FORCE PARTICIPATION RATES   IS.     1.007000
 DO YOU WANT TO CHANGE THE VALUE ?
NO
WHAT YEAR DO YOU WISH TO RUN TO?:
```

```
 THE VALUE FOR THE COUNTY INCOME BY SECTORS IS.
SECTOR  1;
2.636
SECTOR  2;
0.735
SECTOR  3;
1.507
SECTOR  4;
0.006
SECTOR  5;
0.438
SECTOR  6;
0.992
SECTOR  7;
2.620
SECTOR  8;
1.826
SECTOR  9;
5.701
 THE VALUES FOR OTHER INCOME MEASURES ARE.
 SECTOR  1
11.219
 SECTOR  2
0.742
 SECTOR  3
4.500
 SECTOR  4
0.796
 SECTOR  5
5.903
 SECTOR  6
21.568
 SECTOR  7
6.629
 SECTOR  8
9.172
 SECTOR  9
37.369
 THE VALUE FOR COUNTY EMPLOYMENT BY ECONOMIC SECTOR IS.
 SECTOR 1
254.
 SECTOR 2
52.
 SECTOR 3
275.
 SECTOR 4
1.
 SECTOR 5
38.
 SECTOR 6
93.
 SECTOR 7
389.
 SECTOR 8
396.
 SECTOR 9
972.
```

```
 WHAT IS THE VALUE FOR TOTAL COUNTY WAGE AND SALARY EMPLOYMENT?
2470.
 WHAT IS THE VALUE FOR PROPRIETIOR FARM EMPLOYMENT?
1149.
 WHAT IS THE VALUE FOR TOTAL PROPRIETOR NONFARM EMPLOYMENT ?
569.
 WHAT IS THE COUNTY AREA IN SQUARE MILES ?
810.
 WHAT IS THE TOTAL COUNTY POPULATION ?
13288.
 WHAT IS THE TOTAL COMMUNITY POPULATION ?
5099.
 SPROP =    0.42726
 PPROP =     0.38373
 PROP =     0.64703
THE ANUAL MIGRATION RATE FOR THE COMMUNITY IS    0.01500
DO YOU WISH TO CHANGE IT?(YES OR NO)
NO
THE ANUAL MIGRATION RATE FOR THE SERVICE AREA IS    0.01800
DO YOU WISH TO CHANGE IT?(YES OR NO)
NO



THE POPULATION FOR THE COMMUNITY BY COHORTS IS
MALE <15
525.
MALE 15-19
167.
MALE 20-29
209.
MALE 30-39
161.
MALE 40-44
105.
MALE 45-49
118.
MALE 50-54
106.
MALE 55-59
167.
MALE 60-64
184.
MALE 65-69
182.
MALE 70-79
255.
MALE 80+
107.
```

FEMALE <15
491.
FEMALE 15-19
191.
FEMALE 20-29
265.
FEMALE 30-39
195.
FEMALE 40-44
141.
FEMALE 45-49
157.
FEMALE 50-54
150.
FEMALE 55-59
222.
FEMALE 60-64
257.
FEMALE 65-69
245.
FEMALE 70-79
408.
FEMALE 80+
173.
THE POPULATION FOR THE SERVICE AREA BY AGECOHORTS IS
MALE <15
1030.
MALE 15-19
366.
MALE 20-29
355.
MALE 30-39
325.
MALE 40-44
204.
MALE 45-49
248.
MALE 50-54
232.
MALE 55-59
257.
MALE 60-64
285.
MALE 65-69
237.
MALE 70-79
295.
MALE 80+
109.

FEMALE <15
952.
FEMALE 15-19
341.
FEMALE 20-29
387.
FEMALE 30-39
394.
FEMALE 40-44
225.
FEMALE 45-49
268.
FEMALE 50-54
277.
FEMALE 55-59
284.
FEMALE 60-64
288.
FEMALE 65-69
255.
FEMALE 70-79
303.
FEMALE 80+
130.
WHAT IS THE CITY POPULATION FOR YOUR COMMUNITY FOR THE YEARS THAT THE REVENUE DATA IS FOR ?
5222.
THE SALE TAX FOR YOU COMMUNITY FOR THE MOST RECENT YEAR IS ?
210.0299
WHAT WAS THE ACOHOL BEVERAGE TAX FOR YOUR COMMUNITY INTHE MOST RECENT YEAR ?
31.33454
WHAT WAS THE OCCUPATION TAX REVENUE FOR YOUR COMMUNITY IN THE MOST RECENT YEAR ?
1.044485
WHAT WAS THE FRANCHISE TAX REVENUE FOR YOUR COMMUNITY IN THE MOST RECENT YEAR ?
45.95733
HOW MUCH REVENUE WAS GENERATED FROM LICENSES AND PERMITS FOR THE MOST RECENT YEAR ?
0.522243
HOW MUCH REVENUE WAS GENERATED THROUGH COURT FINES ?
36.03474
HOW MUCH REVENUE WAS GENERATED FROM OTHER SOURCES ?
31.33454
HOW MUCH REVENUE IS THERE FOR THE STREET AND ALLEY FUND ?
35.35771
THE TOTAL NUMBER OF INDUSTIRES ESTIMATED TO BE IN YOUR COMMUNITY IS ?
6.
HOW MUCH REVENUE WAS GENERATED FROM POLICE SERVICES ?
7.311396
THE AMOUNT OF REVENUE RECEIVED FROM GARBAGE SERVICE WAS ?
66.32479
THE AMOUNT OF REVNUE FROM THE CEMETARY WAS ?
7.311396
THE AMOUNT OF REVENUE FROM THE LANDFILL SEVICE IS ?
4.700183

```
THE ANUAL CHANGE IN THE RATIO OF WAGE AND SALARY
EMPLOYMENT TO TOTAL EMPLOYMENT BY SECTOR IS THE FOLLOWING.
 A16 SECTOR  1          1.02900
 A16 SECTOR  2          1.01800
 A16 SECTOR  3          1.00000
 A16 SECTOR  4          1.00000
 A16 SECTOR  5          1.01000
 A16 SECTOR  6          1.00500
 A16 SECTOR  7          1.01200
 A16 SECTOR  8          1.01700
 A16 SECTOR  9          1.00800
DO YOU WISH TO CHANGE IT ?:
NO
THE ANUAL GROWTH RATES FOR WAGE RATES IS THE FOLLOWIN G.
SECTOR 1:       1.28000000
SECTOR 2:       1.04900000
SECTOR 3:       1.06000000
SECTOR 4:       1.10100000
SECTOR 5:       1.10000000
SECTOR 6:       1.08600000
SECTOR 7:       1.03600000
SECTOR 8:       1.10400000
SECTOR 9:       1.06000000
DO YOU WANT TO CHANGE THEM ? :
NO
THE ANUAL GROWTH RATES FOR PROPRIETOR INCOME IS THE FOLLOWING.
SECTOR 1:       1.14500000
SECTOR 2:       1.00800000
SECTOR 3:       1.05500000
SECTOR 4:       1.10000000
SECTOR 5:       1.09000000
SECTOR 6:       1.08200000
SECTOR 7:       1.02000000
SECTOR 8:       1.08000000
SECTOR 9:       1.05000000
DO YOU WISH TO CHANGE THEM ?:
NO
THE ANUAL INCREASE IN TRANSFER PAYMENTS IS.       1.12440014
DO YOU WISH TO CHANGE IT ?(YES OR NO):
NO
THE ANUAL GROWTH IN PROPERTY INCOME IS THE FOLLOWING.       1.15100002
DO YOU WISH TO CHANGE IT ?:
NO
THE ANUAL CHANGE IN OTHER LABOR INCOME IS THE FOLLOWING.       1.16559982
DO YOU WISH TO CHANGE IT ?:
NO
THE ANUAL CHANGE FOR THE RATIO OF SOCIAL SECURITY
PAYMENTS TO WAGE AND SALARY INCOME IS THE FOLLOWING.       1.01459980
 DO YOU WISH TO CHANGE THIS VALUE ?:
NO
```